

REMARKS

The Office Action dated March 13, 2007 has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 1 and 3-17 have been amended to more particularly point out and distinctly claim the subject matter of the invention. Claim 2 has been cancelled without prejudice or disclaimer. No new matter has been added. Claims 1 and 3-17 are submitted for consideration.

Claims 1-17 were objected to because of informalities. Claims 1-17 have been amended to overcome the objection. Therefore, Applicants request that the objection be withdrawn.

Claim 17 was rejected under 35 U.S.C. 101 on the grounds that claim 17 is directed to a non-statutory subject matter. Specifically, the Office Action alleged that there are no explicit definitions for the terms "operator determination unit", "identity modifier", "message former" and "message transmitter." The Office Action therefore took the position that these terms defined "software applications." The rejection is traversed. All of the terms "operator determination unit", "identity modifier", "message formatter", and "message transmitter" relate to elements within the formatter 10. In the current specification, figures 3 and 4 clearly illustrate, and the associated description discloses, that the operator determination function is the formatter within which there is an operator determination unit. The operator

determination unit receives the first message including the indication of the subscriber identity to determine the operator, to which the subscriber identity of the terminal that is to terminate the connection is assigned. For example, paragraph 34, line 6 of the current specification indicates that the formatter receives a signal and the formatter determines the operator with which the B-number is associated.

Furthermore, as can be seen in Step 22 of figure 4, a message is formed which has the modified subscriber identity. In other words, in this embodiment the modified subscriber identity is a prefix plus the number B and a second message, which is the IDP message, for requesting a tariff for a connection, including a subscriber identity field including the modified subscriber identity. Moreover, it is implicit that the formatter includes a message transmitter to transmit the message to the tariff determination function, that is, the charging control unit, as described in paragraph 36, lines 10-11 of the specification. Thus, each of the “operator determination unit”, “identity modifier”, “message former” and “message transmitter,” as recited in the claims, is disclosed in the specification as specific device elements. Based on the explanation presented above, Applicants request that the rejection be withdrawn.

Claims 1-9 and 11-17 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 7,043,229 to Hazlewood (hereinafter Hazelwood) in view of U.S. Patent Publication No. 2004/0242226 to Bot (hereinafter Bot). According to the Office Action, Hazelwood discloses all of the elements of claims 1-9 and 11-17 except for disclosing forming at the operator determination function a modified

subscriber identity having as its second field at least the content of the second field of the subscriber identity of the terminal that is to terminate the connection and having as its first field the content of the first field that is associated with that operator. Therefore, the Office Action combined Hazelwood and Bot in an effort to yield claims 1-9 and 11-17. The rejection is traversed as being based on references that neither teach nor suggest the novel combination of features clearly recited in claims 1-9 and 11-17.

Claim 1, upon which claims 3-16 depend, recites a method for determining a tariff to be applied to a connection in a communication system by means of which connections may be made to terminals associated with any of a plurality of operators. Each terminal is addressable by means of a subscriber identity formatted to include a first field and a second field, the first field being, for at least some of the subscriber identities indicative of the operator with which a respective subscriber identity is associated. The method includes transmitting to an operator determination function of the network a first message requesting a tariff for a connection and including a subscriber identity field including an indication of the subscriber identity of the terminal that is to terminate the connection. The method also includes receiving the first message at the operator determination function and determining by means of the operator determination function the operator to which the subscriber identity of the terminal that is to terminate the connection is assigned, and content of the first field that is associated with that operator. The method further includes forming at the operator determination function a modified subscriber identity having as its second field at least the content of the second field of the subscriber

identity of the terminal that is to terminate the connection and having as its first field the content of the first field that is associated with that operator. The method also includes forming, at the operator determination function, a second message requesting a tariff for a connection and including a subscriber identity field including the modified subscriber identity. The method also includes transmitting the second message to a tariff determination function arranged to analyze a subscriber identity received in a message requesting a tariff for a connection to determine a tariff based on the first field of the received subscriber identity.

Claim 17 recites an operator determination function for use in determining a tariff to be applied to a connection in a communication system by means of which connections may be made to terminals associated with any of a plurality of operators. Each terminal is addressable by means of a subscriber identity formatted to include a first field and a second field, the first field being, for at least some of the subscriber identities indicative of the operator with which a respective subscriber identity is associated. The operator determination function includes an operator determination unit responsive to receiving a first message including an indication of the subscriber identity of the terminal that is to terminate the connection to determine the operator to which the subscriber identity of the terminal that is to terminate the connection is assigned, and content of the first field that is associated with that operator. The operator determination function also includes an identity modifier arranged to receive the content and form a modified subscriber identity having as its second field at least the content of the second field of the subscriber identity

of the terminal that is to terminate the connection and having as its first field the content of the first field that is associated with that operator. The operator determination function further includes a message former arranged to receive the modified subscriber identity and form a second message requesting a tariff for a connection and including a subscriber identity field including the modified subscriber identity. The operator determination function also includes a message transmitter for transmitting the second message to a tariff determination function arranged to analyze a subscriber identity received in a message requesting a tariff for a connection to determine a tariff based on the first field of the received subscriber identity.

As outlined below, Hazelwood and Bot do not teach or suggest the all of the elements of the pending claims.

Hazelwood discloses a system and method for determining a tariff for a real-time wireless service such as a prepaid service (PPS) for a wireless telephone call. A Local Number Portability Point (LNPP) provides an interface between service scripts in a Service Control Point (SCP) or application server, and an LNP database. When an Initial Detection Point (IDP) message is received by the service scripts, a query is sent through the LNPP to the LNP database to determine whether the call is made to or from a ported telephone number. If so, a routing number is returned. The scripts determine whether the routing number points to the network operator's own network or another, and notify a Service Data Point (SDP). If the routing number points to the operator's own network, the

SDP applies a first tariff to the call. If the routing number points to another network, the SDP applies a second tariff.

Bot discloses a method for accessing an intelligent network (IN services) implemented in a first telecommunication network by a terminal, which is subscribed to the first network and which is roaming in a second telecommunication network. The second network is coupled to the first network. The method comprises the steps initiated by an IN service request number sent from the terminal and received in a second service switching function (SSF) in the second network. The steps include sending an IN service request detect message from the second SSF to a first SCF in the first network, based on the number and sending a redirect message from a second SCF to the second SSF. The redirect message includes a command to establish a connection and a destination number associated with the IN service to be accessed. The method also includes accessing the IN service from the second SSF by dialing an access number comprising the destination number. The destination number can comprise a prefix to the number sent from the terminal.

Applicants submit that the combination of Hazelwood and Bot does not teach or suggest the combination of features recited in the pending claims. Each of the pending claims, in part, recites transmitting to an operator determination function, of the network, a first message requesting a tariff for a connection, forming at the operator determination function a modified subscriber identity and a second message requesting a tariff for the connection and transmitting the second message to a tariff

determination function. Hazelwood does not teach or suggest these features.

Hazlewood describes a system and method for determining a tariff for real-time wireless service such as pre-paid service for a wireless telephone call. The tariff determining node receives an initial detection point (D P) message which then triggers a query to be sent to a location number portability database to determine whether the call is made to or from a ported telephone number. All of the embodiments of Hazlewood show a server or function, the SCP or SCP/application server combination, which receives a first message requesting tariff information for a connection, including the subscriber identity field with the indicator of the terminal of origin and termination values. Hazlewood merely disclose transmitting a local number portability request message to a local number portability function or server identified by reference. In Hazelwood, the LNPP server looks-up the query, in a separate database, and receives results indicating whether or not the number has been ported. The LNPP server, of Hazelwood, then sends a result message back to the function that received the first message and the function looks up the message prefix, if required.

The disclosure of Hazelwood is clearly different from the present invention, as recited in claim 1. Claim 1 recites as operation determination function which performs an initial pre-processing of the tariff request. The operation determination function does the determination by carrying out a look-up of whether or not the number has been ported. The operation determination function also inserts the prefix to the number when the

operator determination function sends the second message requesting the tariff for the connection. In doing the tariff determination function (or server) used can be implemented on a conventional server. Therefore, the disclosure of the present invention does not require the server to be modified in order to function, as is described in Hazlewood. In other words, the present invention pre-processes the request message, in the operation determination function, prior to sending it to a convention tariff determination server. In Hazlewood, on the other hand, the tariff determination server has to perform its own checks. Hence, in Hazelwood, it is the tariff determination function of the network which is forced to carry out the determination of whether or not the number has been ported.

Bot does not cure any of the deficiencies of Hazelwood, as outlined above. Specifically, Bot does not teach or suggest transmitting to an operator determination function of the network a first message requesting a tariff for a connection, forming at the operator determination function a modified subscriber identity and a second message requesting a tariff for the connection and transmitting the second message to a tariff determination function. Based on the distinctions noted above, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Hazelwood nor Bot, whether taken singly or combined, teaches or suggests each feature of claims 1 and 17 and hence, dependent claims 3-16 thereon.

Claim 10 was rejected under 35 U.S.C. §103(a) as being unpatentable over Hazlewood in view of Bot and further in view of U.S. Patent Publication No. 2002/0176405 to Aijala (hereinafter Aijala). According to the Office Action, Hazelwood and Bot teach all of the elements of claim 10 except for teaching that the messages are SIP INVITE. Therefore, the Office Action combined the teachings of Hazelwood, Bot and Aijala to yield all of the elements of claim 10. The rejection is traversed as being based on references that do not teach or suggest the combination of elements recited in claim 1, upon which claim 10 depends.

Aijala does not cure any of the deficiencies of Hazelwood and Bot, as outlined above. Specifically, Aijala does not teach or suggest transmitting to an operator determination function of the network a first message requesting a tariff for a connection, forming at the operator determination function a modified subscriber identity and a second message requesting a tariff for the connection and transmitting the second message to a tariff determination function, as recited in claim 1, upon which claim 10 depends. Based on the distinctions noted above, Applicants respectfully assert that the rejection under 35 U.S.C. §103(a) should be withdrawn because neither Hazelwood, Bot nor Aijala, whether taken singly or combined, teaches or suggests each feature of claim 1 and hence, dependent claim 10 thereon.

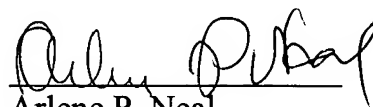
As noted previously, claims 1 and 3-17 recite subject matter which is neither disclosed nor suggested in the prior art references cited in the Office Action. It is

therefore respectfully requested that all of claims 1 and 3-17 be allowed and this application passed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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Enclosures: Petition for Extension of Time
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